FINAL PROJECT

You are asked to write a computer program to solve the following LP problem in canonical form:

$$\begin{aligned} \max z &= cx, \\ \text{s.t.} \quad Ax &\leq b \\ x &\geq 0 \end{aligned}$$

where $b \geq 0$.

Input: Three coefficients matricies, c, A, b;
Output: The optimizer and the optimum. If the optimum is infinity, you program should be able to identify this situation.

You can use any programming language you like (Matlab has builtin procedures to solve LPs, you can not use those, of course). The robuster your program is, the more credit you will earn. The testing LP problems are the special examples given in class, i.e. the cases in which there are multiple optimal solutions, degeneracy and unbounded optimum.

You need to work in teams of four or five people and you can choose your peers as you like. Submit the following on T-square:

- The code;
- A report with results of the testing problems. Please include the names of the people in your group.

Please compress the above into one single file and name it after the people in your group.

The due date is 08/01/2011.